Comments on Proposed 303d Listings

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CCAMP staff should be commended for the extensive work that has gone into preparing this list, particularly for the Waterbody Fact Sheets - they represent a tremendous amount of work and provide a relatively clear rationale for how the Listing Policy was applied. We do, however, have concerns with some of the listings that we've outlined below. We would be happy to talk further with you about these concerns.

Inability to access data:
We appreciate that the data file used in this analysis was made available via the website. However, this file did not contain station identifiers and this prevented us from locating specific lines of data used in each assessment. Because of this, we could not evaluate the magnitude of the exceedance, or any other information that might better inform the result and the related analysis (except for those listings that were based on County data, in which case we looked at our own database).

Previous listings not supported by data that was not included in the current analysis
We recommend that Soquel Lagoon be de-listed for nutrients based on the Comparative Lagoon Ecological Assessment Program (CLEAP) data that were not included in this analysis. Similarly, we do recommend that Aptos Lagoon be listed based on the same analysis that did show that it was impaired by nutrients.

Utilize a watershed approach to 303(d) listing and TMDL implementation
10 streams tributary to the San Lorenzo River are either an existing or proposed listing for sedimentation/ siltation, including:

- Bean
- Bear
- Boulder
- Branciforte
- Carbonera
- Fall
- Kings
- Lompico
- Shingle Mill
- Zayante

Some of these listings are categorized as 'being addressed', while others are 'TMDL Required", depending on whether or not those waterbodies were listed on the 303(d) list prior to TMDL development. The source identification table (Table 4.4 (pg. 4-8) of the *San Lorenzo River Watershed Siltation TMDL,* September, 2002) identifies all of the above creeks with the exception of Fall Creek as contributors of sediment to the San Lorenzo River. Development of additional, individual TMDLs for each of these waterbodies would be a waste of resources considering that one already exists for the entire San Lorenzo River Watershed. Also, implementation of the San Lorenzo River sediment TMDL takes place on a watershed scale. For example, the County conducts timber harvest review and code enforcement actions throughout the watershed. Also, the Resource Conservation District of Santa Cruz County implements the Rural Roads Program throughout the watershed. Much of this work is described in the TMDL Triennial reports, most recently prepared by the County for the 2003 – 2006 timeframe and submitted to your Board. In summary, we propose that the existing San Lorenzo River Watershed Siltation TMDL be revised to incorporate the additional waterbodies based on the new lines of evidence.

We do challenge the listing of Fall Creek for sedimentation. Fall Creek is underlain by granitic rock and most of the watershed is State Park. There are no lines of evidence in the current report, and our data collected between 1977 and 1990 reveal the highest turbidity reading of 18 ntu's.

We similarly suggest that the proposed listings for *E.coli,* Enterococcus and Fecal Coliform for Branciforte and Zayante Creek should be indicated as being addressed through the recently adopted San Lorenzo River, San Lorenzo River Lagoon, Carbonera Creek and Lompico Creek Pathogens TMDL.

Establish a 'watch list'
A small number of samples (as few as two) were used to justify listing several waterbodies, most notably for chlorpyrifos. Listing a waterbody based on as few as two samples is in agreement with the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). However, there are175 Category 5 waterbodies proposed for listing that will require Total Maximum Daily Loads (TMDLs) to be developed. Some of these TMDLs are not scheduled for development until 2021. Given that there are already insufficient resources for TMDL development, and much less for implementation the bulk of which falls to local jurisdictions, we propose that the listings supported by a minimal amount of data be placed on a watch list, instead of the 303(d) list. This would allow resources to be applied to the greatest, and most supported, issues facing central coast waterbodies. We also support the use of a watch list given the relative ease in listing a waterbody compared to the challenge of removing a waterbody from the list.

Grab Samples, Temporal Variability, and Natural Conditons
Much of the data for these listings was generated by collecting instantaneous grab samples. While useful as a general evaluation tool, grab samples are limited in temporal variability, and they represent quality conditions only for a specific point in time. Depending upon the time of day the sample is collected, the data may not be adequate to determine standard compliance for some parameters such as pH and dissolved oxygen, which naturally vary over a 24- hour period. In addition, some of the proposed pH listings, (e.g. McEnery Spring) are likely driven by local geology, where relatively young water is moving through sandy soil (Santa Margarita Sandstone), and it doesn't have the time to pick up enough minerals to buffer the water. This should be considered under the natural condition provisions under the Clean Water Act.

According to and EPA Region X document entitled, *Principles to Consider When Reviewing and Using Natural Condition Provisions:*

"Decisions made using a natural condition provision (which allow a water body to be removed or not included on the list) should be based on existing and readily available data and information, supported by a site-specific, scientifically defensible rationale that does one of the following:

- explains why human activities in a watershed are not directly or indirectly the cause of the exceedance of WQS for the pollutant of concern;
- shows there has been virtually no human activity in the watershed that would affect the water quality parameter in question;
- explains how natural processes alone are adequate to account for the observed exceedance of the water quality standard for the pollutant of concern; or
- shows that the water quality in the watershed is similar to that measured in an undisturbed reference location."

Also, to what extent are parameters such as dissolved oxygen driven by eutrophic conditions? (see CLEAP report) We suggest that the Regional Board consider addressing low dissolved oxygen through the appropriate mechanism, which may be a nutrient TMDL for many waterbodies.

We suggest that more detailed studies (i.e. continuous water quality monitoring) be conducted to determine the extent of water quality exceedances for several listings, including:

- Moore Creek – pH and low D.O.
- Lockhart Gulch – pH and low D.O.
- McEnery Spring – pH
- Newell Creek – pH
- Spring Lakes Creek – pH
- Corcoran lagoon – pH
- Rodeo Gulch – pH
- Corralitos Creek – pH
- Harkins Slough – low D.O.

Mapping of Reaches

The 'estimated area to be assessed' is a confusing term to us and some of our partners. We request that either landmarks be applied to these numbers (i.e. 4.8 miles from location X to location Y). Or we request more detailed mapping of these reaches, or both.